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Date: April 16, 2020

To: ESAT Region 3 Project Officer

From: Nonresponsive based on revised scope
Validator

Nonresponsive based on revised scope
Reviewer

Subject: Organic Data Validation (S4VEM)
FORMER FEDERAL-MOGUL SITE
48722 C0AC0

Overview

This data package consisted of one (1) trip blank, three (3) drinking water samples analyzed for trace volatile target analytes. This sample set included a field duplicate sample.

Analyses were performed by Chemtech Consulting Group (CHM) according to Contract Laboratory Program (CLP) Statement of Work (SOW) SOM02.4.

Data were validated according to the National Functional Guidelines for Organic Superfund Methods Data Review and applicable USEPA Region 3 modifications. Electronic validation was performed by the Electronic Data eXchange & Evaluation System (EXES). The validation report has been assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual).

The following validation narrative is an evaluation of laboratory reported data based on the electronic data package available through EXES Data Manager on February 11, 2020.

No drinking water sample in this SDG reported a result which exceeded the National Primary Drinking Water Regulations (NPDWR) Maximum Contaminant Levels (MCLs).

Summary

Deuterated Monitoring Compound (DMC) outliers were identified that resulted in the rejection as well as the estimation of sample results. Blank contamination required estimation of sample results.

Major Problem

Percent recovery for DMC vinyl chloride-d3 was <10% for samples C0AC0, C0AC1 and the reanalysis of C0AC2. The reanalysis of sample C0AC2 also reported DMC toluene-d8 at <10% . All associated target analytes were non-detect in these samples. Quantitation limits are unusable and were qualified "R".

Minor Problem

Percent recoveries for DCMs 1,1-dichloroethene-d2 and toluene-d8 were outside the lower control limits for samples C0AC0 and C0AC1. The reanalysis of sample C0AC2 had low percent recoveries for DMCs 1,1-dichloroethene-d2 and trans-1,3-dichloropropene-d4. Analytes associated with these DMCs were not detected; quantitation limits are estimated and were qualified "UJ".

Notes

Detected target analytes less than Contract Required Quantitation Limits (CRQLs) are estimated and have been qualified "J".

Method blanks (MBs) VBLK52/VBLK53 detected acetone and/or methylene chloride < the CRQL. Acetone and methylene chloride results in the associated field samples that are < the CRQL were qualified "JB". Trip blank C0AC3 reported methylene chloride < the CRQL; the methylene chloride was reported at the CRQL and qualified "U".

Storage Blk (VHBLK01) detected acetone < the CRQL and methylene chloride > the CRQL. Methylene chloride results in all samples are less than the CRQL and were qualified "JB". Acetone results in all field samples less than the CRQL were qualified "JB". Acetone in the Trip blk (C0AC3) was > 2x the storage blk result and > the CRQL, result was not qualified.

Trip blank C0AC3 detected acetone > the CRQL and chloromethane < the CRQL. Acetone and chloromethane results in all the field samples are < the CRQL, results were qualified "JB".

Sample C0AC2 had more than three (3) DMCs outside control limits. As a corrective action sample was re-analyzed (C0AC2RE) and results were similar. The reanalyzed sample was reported.

Results reported for field duplicate pair C0AC1 and C0AC2 were comparable except carbon disulfide, methylene chloride and chloroform. No data were qualified based on field duplicate precision.

Manual integrations were performed and identified by the laboratory. A subset of these was evaluated and found to be accurate and consistent. No action was taken based on manual integrations.

Tentatively Identified Compounds (TICs) are not reviewed by data validators. The validation qualifiers are applied by EXES electronic validation based on laboratory qualifiers. By definition, all compounds identified as TICs should be treated as tentative identifications and all reported results should be considered estimated.

Sample calculation checks were performed on all field samples. All calculated results had Relative Percent Differences (RPDs) less than 5% of the reported results. No sample data were qualified.

Glossary of Organic Data Qualifier Codes

Validation Qualifiers	In order of descending precedence. Only one of these qualifiers may apply to any result.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
Additional Qualifiers	**Additional qualifiers may be combined with other qualifiers.**
N	The analyte has been "tentatively identified" or "presumptively" as present.
B	The result is presumed a blank contaminant. This qualifier is used for drinking water samples only.
C	The target Pesticide or Aroclor analyte identification has been confirmed by Gas Chromatography/Mass Spectrometry (GC/MS). This qualifier may be added to other qualifiers.
X	The target Pesticide or Aroclor analyte identification was not confirmed when GC/MS analysis was performed. This qualifier may be added to other qualifiers.